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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/747,866	12/29/2003	Richard Rivera	TROPIP.041DV1	2806

20995 7590 04/26/2006

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EXAMINER

CHAN, KO HUNG

ART UNIT PAPER NUMBER

3632

DATE MAILED: 04/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/747,866

Applicant(s)

RIVERA, RICHARD

Examiner

Korie H. Chan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 15 February 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-5,7-12,15-18,20 and 22-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5,7-12,15-18, 20 and 22-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

***Claim Rejections - 35 USC § 112***

Claims 1-5, 12, 15-18, and 22-28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Currently amended independent claims 1, 4, and 16 are vague and indefinite for the reasons that the language in the body of the claim such as "first end attached to the chair" and "a second end attached to the base member" which indicates combination claim with the chair and base member are inconsistent with the preamble of the claims which sets forth a non-combinational claim of the coupling mechanism with the chair and the base member. The preamble of these independent claims sets forth an intended use "for coupling a chair member to a base member. Further regarding claim 1, line 4, "the chair" lacks antecedent basis. Claims 22 and 23 are vague in that it depends from cancelled claim 21.

***Claim Rejections - 35 USC § 103***

Claims 1-5, 7-10, 12, 15 -18, 20, 22, and 25-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vanderminden, Sr. (US patent no. 5,599,064) in view of Berry (US patent no. 2,450,869) and Rowland et al (US patent no. 2,533,511). Vanderminden discloses two elongate member of C-shaped springs (25) connected by a horizontal support or mount component or elongate connector (29) with downward post (22) and wherein the mount component or elongate connector has mount portions (the horizontal plate portions at ends of 29) each with mounting surface that complement the C-shaped member outer surface and the elongate member fits

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transversely across the mount portion, (figure 2); wherein the C-spring is made of aluminum (Col. 2, line 52). However, Vanderminden does not disclose providing central channel on the each of the C-shaped member and that the channel has substantially the same cross-sectional dimensions in the top, bottom, and curved segments. To provide a channel in a leaf spring to distribute stress and reduce weight is old and well-known in the art as demonstrated by Berry (Col. 1, lines 30-50). Berry also contemplates that such channel and plate maybe constant (Col. 2, lines 36-40) in cross-section such that they are flat. Rowland teaches a C-shaped spring (figures 5-14) having longitudinal channels (15, 16) on outer surface and flat inner surface and with first and second adjacent ends (5) and with thicker side portion (side of figure 14) and thin center portion (15) such that stress on the spring under loading are substantially constant throughout the major portion of the spring (Col. 3, lines 1-6). It would have been obvious to one of ordinary skill in the art to have modify the springs of Vanderminden such that channel such that they are of uniform cross-section as taught by Berry and to have the channel or channels extend from a first end to a second end as taught by Rowland for even distribution of stress of the spring under loading as well as reduction in weight as taught to be desirable by Berry and Rowland. Regarding claims 3 and 12, it would have been an obvious matter of design choice to have the side portion 30% thicker than the center portion since applicant has not disclose such specific dimension is critical or of particular advantage. Moreover, it appears other percentage of thickness would perform as well. Regarding claims 20-22, method steps

of making the apparatus would have been obvious given the device of the above combination.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Vanderminden, Sr. (US patent no. 5,599,064) in view of Berry (US patent no. 2,450,869) and Rowland et al (US patent no. 2,533,511) as applied above, and further in view of Holmstrom (US patent no. 3,297,360). Vanderminden, Berry, and Rowland combined disclosed all the claimed features of applicant's invention except for the hole in the first end of elongate member for attachment to component. To attach support to seat member by providing hole in the elongate member for receiving fastener is old and well-known in the art. Holmstrom teaches in a C-shaped spring support having holes (figure 2) at first end for receiving fastener for attachment to the seat member (figure 5). It would have been obvious to one of ordinary skill in the art to provide hole in the first end of C-shaped spring of Vanderminden, Berry, and Rowland combined for receiving fastener for attachment to the seat member as taught by Holmstrom.

Claims 23 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vanderminden, Sr. (US patent no. 5,599,064) in view of Berry (US patent no. 2,450,869) and Rowland et al (US patent no. 2,533,511) as applied above, and further in view of Holmstrom (US patent no. 3,297,360) and Mangnuson et al (US patent no. 5,655,816). Vanderminden, Berry, Rowland, and Holmstrom combined disclosed all the claimed features of applicant's invention (see rejection of claim 11 above) except for the hole being a slot. To substitute a fastener receiving hole with a fastener receiving slot has the well-known advantage of adjustment along the slot. Mangnuson teaches a

mounting (58, figure 2) to a chair having a slot (58f). It would have been obvious to one of ordinary skill in the art to have modify the hole of Vanderminden, Sr., Rowland and Holmstrom combined such that it is of a slot as taught by Mangnuson to facilitate adjustability along the slot.

### ***Response to Arguments***

Applicant's arguments filed Feb. 15, 2006 have been fully considered but they are not persuasive. In response to applicant's argument that Berry and Rowland references is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Berry and Rowland references are reasonably pertinent to the particular problem with which the applicant was concerned. As applicant has disclosed in his specification on page 3, lines 1-3 "flexible coupling member made of aluminum has not been capable of providing the desirable qualities of a steel spring while providing sufficient structural integrity to ensure safe use." And consequently, applicant has provided "a contoured profile that provides desirable strength and flexibility" page 3, paragraph [0011], lines 5-6. Both Berry and Rowland inventions are concerned with structural integrity and stress in a flexible member by providing a flexible member with central channel. Berry (col. 1, lines 30-50) discusses providing the channel in the flexible member to distribute stress and reduce weight. Rowland also teaches having longitudinal channels on outer surface with flat inner

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surface such that stress on the spring under loading are substantially constant throughout the major portion of the spring (Col. 3, lines 1-6). Consequently Berry and Rowland references are analogous to Vanderminden's flexible member and provides the motivation to combine by having a profiled flexible member for the advantage of reducing stress in a flexible spring.

Applicant argues that the side portion being 30% thicker than the center portion is not an obvious matter of design choice. Examiner disagrees. The cited teaching references of Berry and Rowland does disclose the side portion to be thicker than the center portion. It would have been obvious to one ordinary skill in the art to have made the side portion 30 % thicker than the center portion. Applicant's choice of 30% is of obvious design choice. There is no criticality to make the thickness at 30%. What about 25% or 35% or other percentage of thickness over the center portion. Indeed, it would appear other thickness of the side portions over the center portion would perform as well. The 30% is a preferred thickness of applicant. It is not a critical thickness.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of


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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Korie H. Chan whose telephone number is 571-272-6816. The examiner can normally be reached on Monday - Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Olszewski can be reached on 571-272-6788. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Korie H. Chan  
Primary Examiner  
Art Unit 3632

khc  
April 25, 2006